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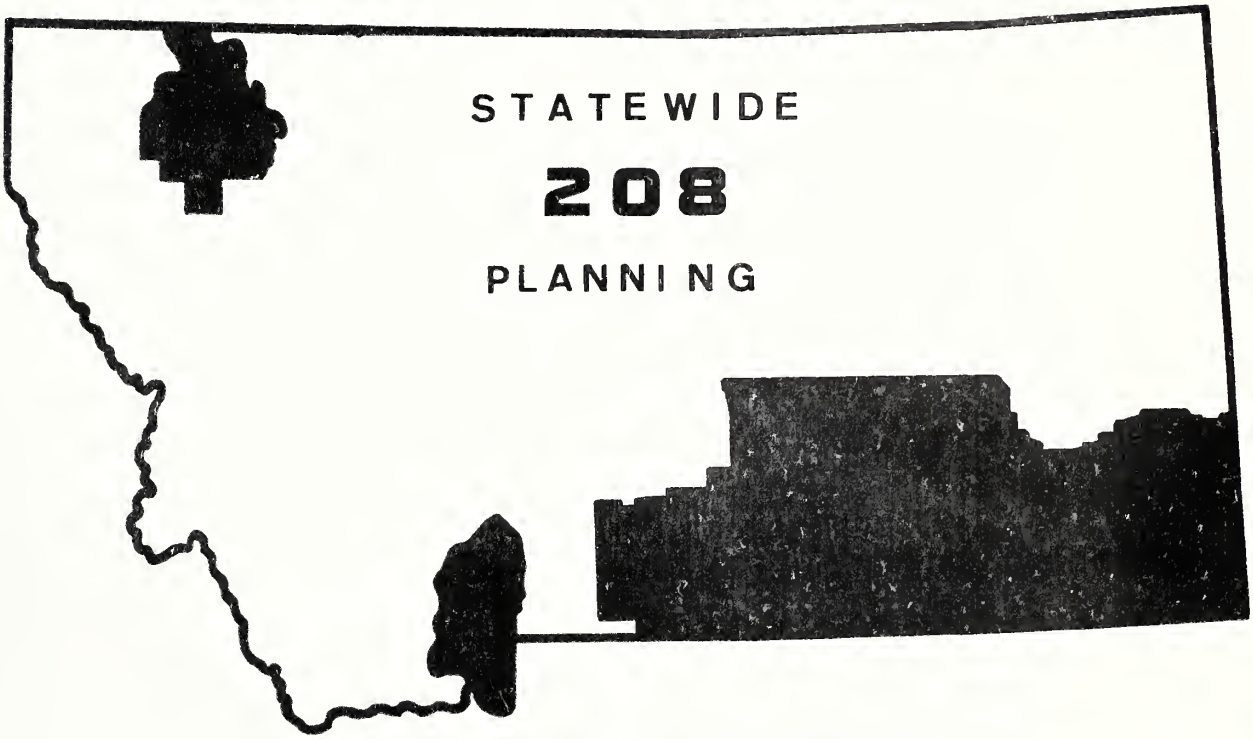

STATEWIDE

208

PLANNING

TO ACHIEVE AND PRESERVE

CLEAN WATERS

Final Work Plan

Water Quality Bureau
Environmental Sciences Division
Department of Health and
Environmental Sciences

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FINAL WORK PLAN
FOR
STATEWIDE SECTION 208
WATER QUALITY MANAGEMENT PLANNING

Submitted to:

U. S. Environmental Protection Agency
Region VIII, 1860 Lincoln Street
Denver, Colorado 80203

Submitted by:

Montana Department of Health and Environmental Sciences
Environmental Sciences Division
Water Quality Bureau
Helena, Montana 59601

Approved:

November 23, 1976

TABLE OF CONTENTS

Page

GRANT APPROVAL NOTIFICATION iv

I. INTRODUCTION 1

II. PURPOSE 2

III. OBJECTIVES OF THE PLANNING PROCESS 2

IV. SCOPE OF STATEWIDE 208 PLANNING 4

V. OUTPUTS OF THE PLANNING PROCESS 7

VI. WORK PLAN

A. Planning Tasks 12

B. Budget 30

C. Currently Available Data 35

VII. COORDINATION AND COMPATIBILITY

A. Statewide 208 Advisory System 37

B. Relationships With Other Programs 39

VIII. PUBLIC PARTICIPATION 42

IX. IMPLEMENTATION 44

TABLES

1. Statewide 208 Fund Allocations 31

2. Statewide 208 Budget Disbursement Schedule 32

FIGURES

1. Flow Diagram of Planning Tasks 14

2. Section 208 Planning Units 16

3. Anticipated and Actual Cumulative Disbursements 36

Page

APPENDICES

A. Abbreviations used in the Final Work Plan 49

B. Draft Final Work Plan review comments 51

C. Tentative land use map definitions 63

D. Potential Citizen Information Group participants 68

E. Statewide 208 Advisory System members 72

F. Index to a review of existing water quality related legislation 81

G. Study proposals 86

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII
1860 LINCOLN STREET
DENVER, COLORADO 80203

JUN 8 1976

Reference: 8W-WP

Mr. Donald G. Willems, Chief
Water Quality Bureau
Environmental Sciences Division
State Department of Health and
Environmental Sciences
Helena, Montana 59601

Re: Section 208 Planning Grant
P008154010

Dear Mr. Willems:

We are pleased to advise you that your application for Federal grant funds under the provision of Section 208 of the Federal Water Pollution Control Act Amendments of 1972 has been approved by this office.

We therefore, tender a grant of $600,000. This grant is subject to the conditions included on the accompanying Grant Agreement. Attached to the agreement are copies of the appropriate Federal Registers.

The administration of funds under this grant will be by letter of credit. Negotiation by EPA of letter of credit procedures for your agency is currently in progress and should be completed in the near future.

Enclosed are four copies of the Grant Agreement, which describes the approved assistance. The offer must be accepted within three weeks of receipt. Please sign and return the original and two copies to this office by certified mail, to the attention of the Office of Grants.

Sincerely yours,

John A. Green
Regional Administrator

Enclosures

STATEWIDE 208 FINAL WORK PLAN

I. INTRODUCTION

Time schedule constraints and the intricate nature of 208 planning have resulted in a Final Work Plan requiring continual revision and addition of specific details subsequent to its submission. For example, tasks have been only generally defined as details will become apparent during succeeding coordinated planning and the development of study proposals and contractual agreements. Contracts will be added to the appendix section of the Final Work Plan as they are finalized.

Secondly, budget details should be reviewed as general, best estimates at the time of Final Work Plan submission. Though anticipated manpower requirements and a budget disbursement schedule have been included, task initiation and completion will undoubtedly result in budget modifications. For example, initial planning has indicated that allocations for some tasks may be over-estimates while others may not be sufficiently funded. Since study proposals will be detailed subsequent to Final Work Plan submission, budget changes will occur; however, the disbursement schedule has been developed with sufficient inherent carryover from one budget period to the next to account for any new developments or changes.

Further, the brief review period for the Draft Final Work Plan resulted in only a few formal comments on the Plan (see Appendix B). Subsequent comments and corrections/additions are anticipated as the Plan is used during the next two years and periodic Work Plan updates will incorporate revisions.

Finally, an Environmental Protection Agency decision concerning disbursement of supplemental 208 funds is still pending. Should Montana receive support for one or more additional designated planning districts, the Statewide Plan could then be proportionately more comprehensive and detailed for the considerably reduced study area. Although it seems inexpedient to submit a Final Work Plan now, when a favorable EPA decision will require significant modification upon receipt of further funding, the deadlines are firm and the burden of inefficiency will necessarily rest on EPA.

II. PURPOSE

Under Section 208(a)(6) of the Federal Water Pollution Control Act Amendments of 1972 (P. L. 92-500), the State is to act as the planning agency for solving and preventing pollution problems in non-designated areas. The Final Statewide Water Quality Management Plan will identify sources of pollution and measures necessary for treatment or control of point and nonpoint source pollution over a 20-year period. Additionally, statewide planning will establish priorities and schedules for treatment works construction and identify constructing and operating agencies.

III. OBJECTIVES OF THE PLANNING PROCESS

A. Principal Objectives

The Water Quality Bureau has adopted the following general objectives for Statewide 208 planning:

1) development of a water quality management plan to achieve the 1983 goals of protection and propagation of fish and wildlife, and full body contact recreation in all waters insofar as socially, economically, and environmentally possible;
2) determination of effluent limitations needed to meet applicable water quality standards;
3) development of a plan with recommended abatement measures and proposed funding methods for solutions;

4) evaluation of existing regulatory programs and, if necessary, development of new programs to prevent and control point and nonpoint sources of pollution.

B. Specific Objectives

More specific goals of the planning process are:

1) nonpoint source assessment - The Water Quality Bureau feels 208 planning emphasis should be on nonpoint source pollution as it may be the greatest single barrier to attaining the 1983 goals. Particular attention will be given agricultural nonpoint sources with additional studies of urban stormwater runoff, construction activity, hydrographic modification, land disposal, silviculture activities, and mining activities. The nature, extent, and possible solutions for the problems will be determined.

2) water quality standards - As part of the required periodic review and revision of Montana's water quality standards, the Bureau will inform the public as to proposed actions and abatement strategies and the technical feasibility of achieving the standards. Public hearings and meetings will be used to determine locally desired water uses. Additionally, segment classifications will be revised, where necessary, in accordance with the national criteria for fishable and swimmable waters by 1983 and subjected to public comment.

3) municipal facilities - Municipal facility planning for the study area will assist in assessment and prioritization of existing plans and needs and determination of projected future needs.

4) point source assessment - Water quality limited segments will be identified, taking into consideration existing and tentative standards.

Wasteload allocations for all pollution sources in those segments will be provided; specific emphasis will be on ammonia and chlorine due to their frequent, toxic impact on the aquatic environment. A set of pretreatment requirements for protecting municipal wastewater treatment facilities and a program to institute the requirements will be developed.

5) land use - Rapid population growth in selected areas and intensive land use practices require a water quality management plan which:
    a) develops additional controls to regulate subdivisions and minimize storm drainage problems;
    b) determines preliminary routing, sizing, and timing of major sewer interceptors;
    c) updates land use plans to determine sewer interceptors and treatment facility requirements for each sub-unit;
    d) evaluates the impact of current and projected land use practices;
    e) evalutes current land use controls;
    f) determines needed corrective measures for land use practices;
    g) recommends water quality related land use management programs.

6) preservation and protection - In order to maintain the quality of waters currently meeting or exceeding the 1983 goal, the Plan will develop and evaluate a non-degradation policy.

IV. SCOPE OF STATEWIDE 208 PLANNING

The scope of water quality management planning is ultimately determined by fund availability and time, both of which are limited. With these inherent constraints, development of a successful, implementable plan is dependent upon three phases of priority ranking.

Initial fund allocations have prioritized the federally specified subject areas as follows:

1. inventories and projections
2. nonpoint source assessment
3. nonpoint source control needs
4. water quality assessment and segment classifications
5. management agencies
6. environmental, social, and economic impact
7. regulatory programs
8. urban and industrial stormwater system needs
9. residual waste control needs
10. point source load allocations
11. total maximum daily loads
12. municipal waste treatment system needs
13. industrial waste treatment systems needs
14. target abatement dates
15. water quality standards
16. planning boundaries

Funding priorities are a superficial ranking, indicative of cost/time requirements rather than importance. For example, development of regulatory programs, a major 208 goal, requires less funding because of the extent of existent control measures than the equally important inventories and projections which are higher on the list.

Time and funding limitations will also necessitate a priority segmentation of the study area for various tasks. For example, land use mapping for all 42 counties in the study area cannot be completed by September 1, 1977; therefore, those counties with few or no water quality problems will be mapped last and only if time permits. Likewise, the fisheries, stormwater runoff, and water quantity inventories will focus initial attention on critical problem areas.

Inventory and evaluation of data will culminate in a listing of all existing and potential water quality problems which will rank the problems according to their environmental, economical, and social feasibility for solution by 1983. Successful priority ranking will be dependent on a close working relationship with all involved agencies and active public participation.

Though no tasks are specifically designed to identify areas without water quality problems, the processes of problem identification and prioritization will actually result in non-problem area recognition. Time schedules and budget restrictions simply preclude more in-depth assessment of non-problem areas at this time.

The scope of 208 planning consists of three basic components: analysis, implementation strategy, and environmental assessment of the Final Plan. Analytical components of the planning process are the:

1) establishment of planning boundaries
2) identification of present water quality
3) estimation of existing and projected wasteloads
4) estimation of maximum allowable loads
5) specification of water quality standards and non-degradation policy
6) classification of segments
7) assessment of problems and determination of potential obstacles to meeting 1983 goals
8) development of abatement plans which consider alternatives
9) selection of planning approaches and level of detail for relating water quality constraints to abatement measures

Implementation components of statewide water quality management planning include:

1) definition of management agency characteristics and institutional arrangements necessary to meet requirements
2) identification of management constraints in meeting 1983 goals
3) review of existing and required legal authority and financial arrangements
4) evaluation of alternative plans according to the criteria of minimizing costs, maintaining environmental, social, and economic values, and assuring adequate management authority, financial capacity, and implementation feasibility in meeting water quality and carrying out requirements of Section 208
5) selection of Final Plan for review
6) review and approval of Final Plan
7) development of monitoring and revision procedures
8) implementation of Plan by designated agencies

The Water Quality Management Plan will include an environmental assessment covering the analytic and implementation aspects of alternative plans. In addition, the selected Final Plan will be evaluated as to its feasibility for maintaining environmental, social, and economic values of the planning area.

V. OUTPUTS OF THE PLANNING PROCESS

Following is a list of documentable outputs expected to result during the planning process. These outputs will be the basis upon which alternative water quality management plans will be developed.

1) working maps indicating:
    a) sub-planning areas

    - b) areas requiring municipal facilities planning
    - c) water quality and effluent limited segments
    - d) all significant MPDES dischargers
    - e) fixed monitoring stations

2) water quality assessment and stream classification including:
    - a) all existing and potential sources of pollution
    - b) instream water quality
    - c) specific water quality parameters requiring consideration in the total maximum daily load allocation process
    - d) surrounding land areas that do or may contribute to surface water alterations
3) inventories and projections:
    - a) water quality data inventory
    - b) water quantity inventory
    - c) sediment inventory
    - d) fisheries inventory
    - e) animal confinement facilities inventory
    - f) urban stormwater runoff inventory
    - g) projected municipal and industrial wasteloads
    - h) land use inventory
    - i) 20-year growth projections
    - j) projected land use patterns
4) revision of water quality standards
5) development and refinement of a non-degradation policy
6) determination of maximum allowable pollution loads and thermal limits for each water quality criterion being violated or expected to be violated over the next 20 years

7) determination of point source allocations for each pollutant, including thermal pollutant loads, by water quality segment over the 5-year planning period

8) calculation of municipal waste treatment needs by 5-year increments over a 20-year period

9) calculation of industrial waste treatment system needs including:
    a) anticipated industrial point source wasteload reductions required to attain and maintain applicable water quality standards and effluent limitations for a 20-year planning period
    b) any alternative considerations for municipal treatment of industrial sources

10) nonpoint source assessment including:
    a) identification of affected segments
    b) description of nature and extent of problems
    c) evaluation of nonpoint source control needs for each category of nonpoint sources of pollution including:
        - identification of all best management practices necessary to control problems (recognizing that the application of BMP's may vary from area to area depending upon the extent of the problems)
        - evaluation of BMP's to include past history of use and time requirements, proposed regulatory/management programs, cost by agency and activity in 5-year increments, and proposed actions necessary to achieve such controls
        - consideration of agricultural, silvicultural, mining, construction, land disposal (surface and subsurface), and hydrologic modification sources of pollution

11) guidelines for residual waste and land disposal including:
    a) identification of necessary controls to be established over disposition
    b) description of the proposed actions necessary to achieve control
12) evaluation of urban and industrial stormwater systems needs including:
    a) identification of required improvements to existing urban and industrial stormwater systems necessary to attain and maintain applicable water quality standards
    b) identification of needed systems for areas not presently served, over a 20-year period, in order to achieve and maintain standards, emphasizing appropriate land management and other non-structural techniques for runoff control
    c) cost estimate for needs identified in a) and b), the reduction in capital construction costs by using non-structural control measures, and any capital and annual operating costs of such facilities and practices
13) target abatement dates and compliance schedules for all significant discharges, nonpoint source control measures, residual and land disposal controls, and stormwater system needs including:
    a) major interim and final completion dates
    b) requirements necessary to assure adequate tracking of compliance progress
14) outline of regulatory programs including:
    a) description and evaluation of existing programs indicating the extent of implementation authority
    b) procedures and timing for development of additional controls
15) evaluation of management agencies to determine:
    a) ability to carry out existing authority

b) ability to implement required point and nonpoint control programs

c) management constraints in meeting 1983 goals

16) plan evaluation

Evaluation of alternative water quality management plans is an integral part of the planning process and will facilitate selection of the final plan. Citizens and local, state, and federal agencies will have the opportunity to participate in evaluation throughout the planning process, and will then be better able to analyze various alternatives, identify specific plan impacts, and provide suggestions and recommendations.

As per requirements of the Montana Environmental Policy Act, the impact evaluation will:

- inventory existing conditions - The inventory will serve as a basis for the analysis and comparison of alternative management plans.
- evaluate existing situations - Based upon the inventory, a brief analysis of existing situations will aid in prioritization of pollution problems to be addressed by the final plan. Priority ranking will require participation of the public and local, state, and federal agencies.
- develop baseline projections - Baseline projections of environmental, social, and economic factors will be developed from inventory/evaluation of existing situations. These projections, quantitative when possible, may be established by extrapolating present trends over the planning period.
- evaluate alternatives - Each proposed alternative plan will be evaluated by comparing its impact to the baseline projections.

Results of the environmental, social, and economic impact evaluation of alternative plans will be used to select a Final Plan. Subsequently, a complete evaluation of the final plan will identify:

- plan schedules
- effectiveness in meeting water quality goals
- direct costs of proposed structural and non-structural actions
- social, economic, and environmental compatibility

Impacts will be categorized as:

- primary
- beneficial or adverse
- short or long term
- avoidable or unavoidable
- reversible or irreversible

Though attention will be given to cumulative impacts of all elements, localized impacts of specific plan elements (e.g., treatment plant location, interceptor sewers) will be assessed when significant, particularly for localized impacts occurring during the initial five years of the Plan.

VI. WORK PLAN

A. Planning Tasks

The following task descriptions are relatively general as succeeding study outlines and contractual agreements, periodically added to the appendix section, will detail the tasks to be completed. Tasks are intended to accomplish the objectives set forth previously and each will either result in a documentable output or serve as input to a succeeding task.

Major planning tasks, listed below, have been assigned a time allocation (at a rate of $1,500 per man-month) and an agency responsible for completion of the task. The designated agency may, in turn, sub-contract for accomplishment of portions of their tasks.

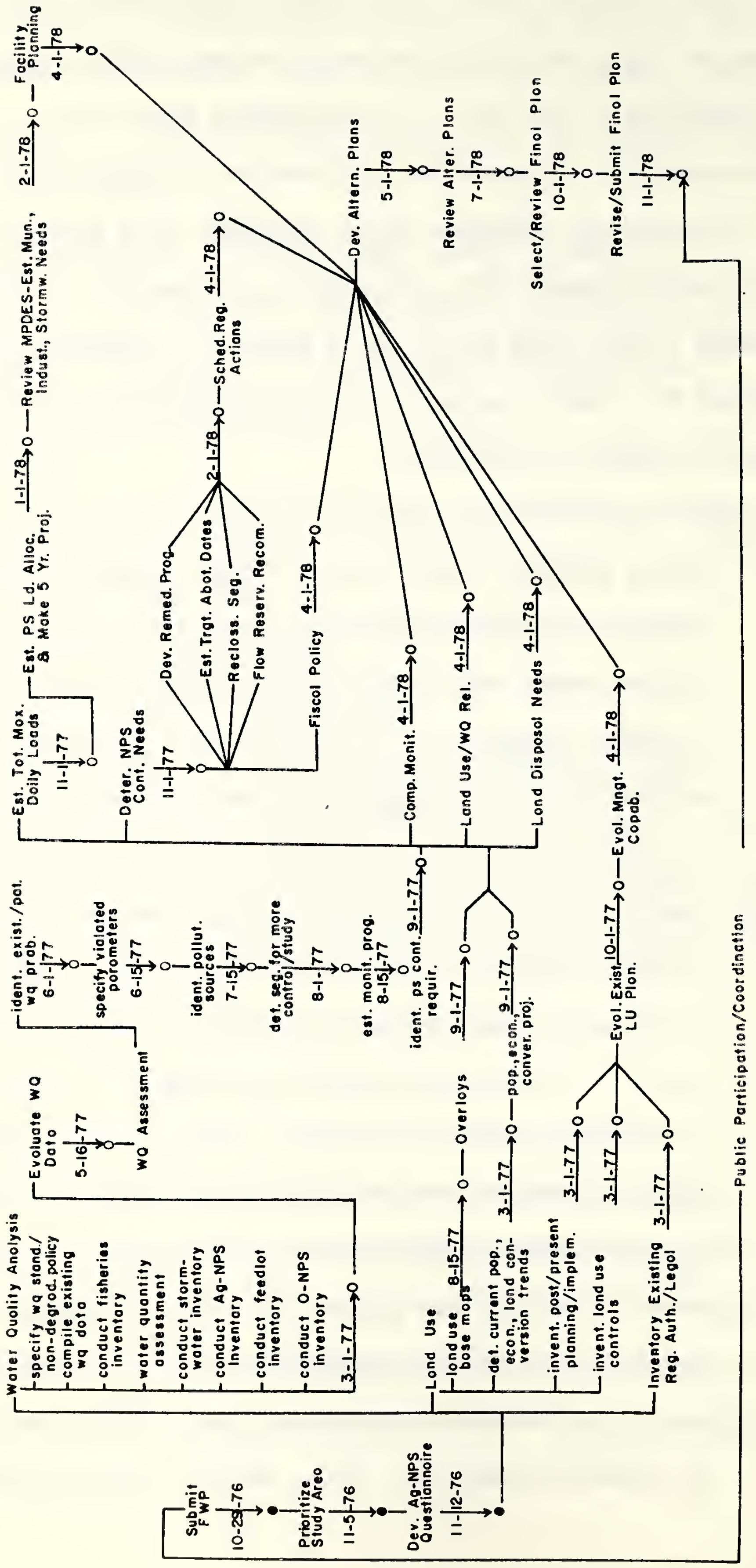
All tasks are scheduled to be completed on or before April 1, 1978. During April-October, 1978, alternative plans will be developed and reviewed; a final plan will then be selected, reviewed, revised, and submitted for federal approval. A flow chart depicting tasks' time scheduling appears in Figure 1.

1) program coordination and public participation
    a) refine and detail work plan - Though the Work Plan has been detailed to include objectives, outputs, analysis and implementation procedures, agency/time assignments for major tasks, and a budget schedule, it is still dynamic; additional study details and contractual agreements will be incorporated as the need arises.

WQB	4 m/m	July 1, 1976 - October 29, 1976

    b) create and meet with advisory system - Section VII contains a complete description of the Advisory System. Council members will receive compensation for meetings attended; the allocation allows for at least six meetings, though additional meetings will be called depending on advisory needs during the planning process. Since the majority of the Technical Information Group members receive travel expenses from their agencies, their attendance at Helena-based Advisory System meetings will not generally be a problem. However, the individuals and groups participating on the Citizen Information Group may have difficulty funding trips to Helena for meetings. Thus, we anticipate a series of CIG

Figure I. Flow diagram of planning tasks.



meetings around the state to adequately solicit CIG input.

WQB 6 m/m July 1, 1976 - Nov. 1, 1978

c) define and map planning area boundary - Overlays to land use base maps will depict the statewide water quality planning study area. The area has been divided into seven sub-planning areas, each encompassing a major drainage or portion thereof (Figure 2). This study area delineation is more refined than the DFWP definition, but will facilitate generalization of problems and solutions in each area. Though some special, critical water quality problems in the sub-planning areas will be examined, the size of the Statewide area demands a certain amount of generalization. The study area excludes the four designated Areawide Planning Districts but includes the three proposed Areawide Planning Districts. Should any of the latter three become designated after October 25, 1976, map plans will be revised accordingly. Map overlays will also indicate water quality and effluent limited segments, facility planning areas, MPDES dischargers, and fixed monitoring stations.

WQB 2 m/m August 15 - September 1, 1977

d) staff, local, state, federal coordination - Many agencies and groups not indicated in the task assignments will be providing advice, assistance, and data to the designated responsible agencies. Project coordination will be facilitated through the Statewide 208 Advisory System described in VII.

WQB 16 m/m July 1, 1976 - Nov. 1, 1978

e) public participation - the WQB has appointed a public participation coordinator who will see that public involvement during the

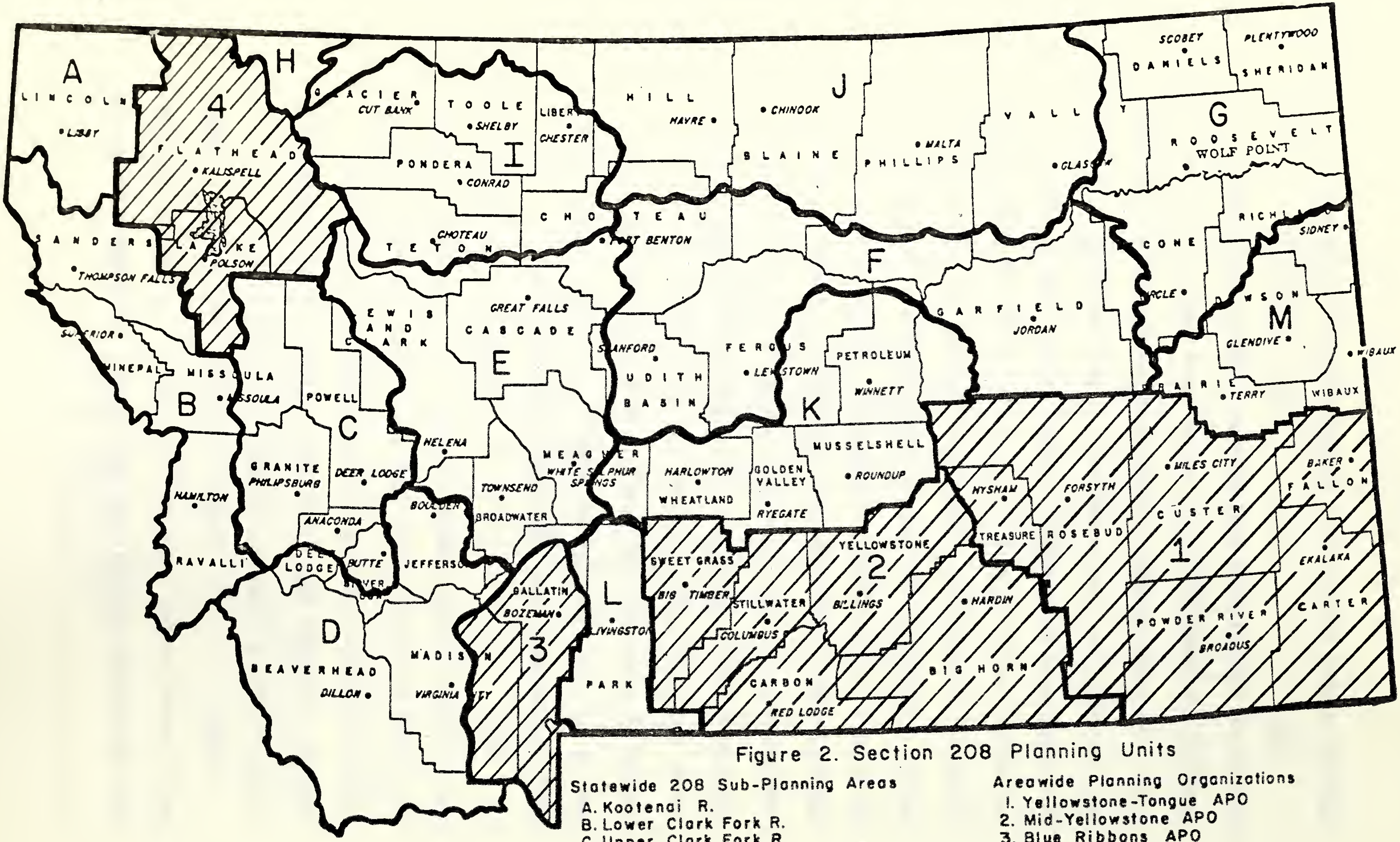


Figure 2. Section 208 Planning Units

Statewide 208 Sub-Planning Areas
- A. Kootenai R.
- B. Lower Clark Fork R.
- C. Upper Clark Fork R.
- D. Upper Missouri R.
- E. Missouri-Sun-Smith R.
- F. Mid-Missouri R.
- G. Lower Missouri R.
- H. St. Mary R.
- I. Marias R.
- J. Milk R.
- K. Musselshell R.
- L. Upper Yellowstone R.
- M. Lower Yellowstone R.

Areawide Planning Organizations
- 1. Yellowstone-Tongue APO
- 2. Mid-Yellowstone APO
- 3. Blue Ribbons APO
- 4. Flathead APO

planning process is continuously encouraged. Participation will be facilitated by public meetings, disbursement of informative literature, and news releases. A detailed discussion of the public participation program occurs in VIII.

WQB 24 m/m July 1, 1976 - November 1, 1978

f) develop alternative plans and final draft preparation and amendment - Preliminary and alternative plans will be evaluated in light of public and Advisory System opinion. A final plan will be selected and subject to a 45-day review by the public and governmental agencies. Final review and revisions will result in state certification of the Plan.

WQB 6 m/m April 1 - November 1, 1978

2) water quality and quantity analysis

a) assemble existing data - Water quality information will be retrieved from STORET, U. S. Geological Survey, Soil Conservation Service, Bureaus of Land Management, Reclamation, and Mines, Department of Fish and Game, U. S. Forest Service, universities, and any other determined source. Data will be aggregated according to type of receiving water (streams, lakes, reservoirs, groundwater) and compiled into a single computerized data bank. In addition, all other inventory data, i.e., fisheries, NPS, etc., will be filed in the same computer bank.

WQB 18 m/m November 1, 1976 - March 1, 1977

b) evaluate existing water quality data - Data evaluation will identify instream water quality (physical, chemical and biological), determine needs for additional information necessary for accurate evaluation of particularly critical areas, and compare existing data to water quality standards and to levels of water quality required by 1983 goals.

WQB 10 m/m March 1 - May 16, 1977

c) conduct water quality assessment - A detailed review of the area's water quality will identify and describe existing and potential violations of water quality standards and sources (point and nonpoint) of pollution. Specific violated parameters will be enumerated and violations categorized as to point and nonpoint source types. The assessment will serve as a basis for revision recommendations of stream classifications and water quality standards to more accurately reflect obtainable conditions. Concurrently, recommendations will be made for a non-degradation policy to prevent deterioration of waters having a quality exceeding state requirements. The policy will specify the degree of waste treatment necessary to prevent degradation of streams by new resource developments and municipal and industrial discharges. Input from the designated planning districts, as it relates to conditions in their areas, will be utilized in the assessment.

WQB 14 m/m May 16 - August 15, 1977

d) conduct fisheries inventory - The Forest Service and Department of Fish and Game are currently involved in a joint habitat-fisheries inventory statewide. Initial phases of the project call for tabulation of all existing data onto computerized forms and for the identification of areas requiring additional study. The Statewide 208 fisheries inventory of prioritized areas will consist of a compilation of existing data, initially onto the F&G/FS forms and ultimately, into the water quality data bank. The information will be of value in assessing water quality, delineating segments in need of protection, making recommendations for classification revision, and determining measures necessary to make specific areas fishable. The WQB will hire a person, selected by the F&G and FS, to compile the data (Appendix G).

WQB, F&G, FS 13.4 m/m Nov. 1, 1976 - March 1, 1977

e) identify and quantify water use and allocations - Based on irrigation potentials, existing water uses, fisheries inventory, public input, and litigations, segments where low flows do or may deplete water quality will be identified. The data may result in recommendations for flow reservations in order to protect these segments. A coordinated effort of DNRC, F&G, and WQB will prioritize areas to be surveyed (Appendix G).

DNRC 10 m/m Nov. 1, 1976 - March 1, 1977

f) coordinate with Statewide Sediment Control Project. Since the objectives of the Sediment Project are coincident with some of the 208 planning goals, much of the Project's data will be incorporated into the Final Plan. Of particular interest will be Best Management Practices recommended for sediment control, quantitative data on the extent of erosion problems, identification of areas which may require site-specific analysis, the success of a regulatory program administered by a conservation district, and a cost-effectiveness analysis of the sediment control program.

WQB 2 m/m Nov. 1, 1976 - March 1, 1977

g) conduct urban and industrial stormwater runoff inventory - The inventory will be an overall assessment of existing systems and an identification of major stormwater runoff discharge points having the potential for aquatic impacts. Information will be obtained through a letter-questionnaire to prioritized incorporated communities followed by on-site inspection. Priority ratings will be based on town size, town proximity to a stream, and quality of the receiving water.

WQB 10 m/m Nov. 1, 1976 - March 1, 1977

h) estimate stormwater runoff control needs - The stormwater inventory will be used to determine existent and future control needs and to recommend preliminary and primary treatment specifications necessary for achievement of MPDES compliance. Accurate estimates of stormwater loading may require prioritized monitoring.

WQB 14 m/m January 1 - February 1, 1978

i) identify Ag-nonpoint source problems - The task requires an identification and assessment of agricultural nonpoint source caused problems which will:

1) describe problems for each sub-planning area
2) identify affected waters and pollution sources
3) evaluate the seriousness of the effects

The water quality assessment task will provide input to this task and vice versa.

MACD 26 m/m Nov. 1, 1976 - March 1, 1977

j) estimate Ag-nonpoint source control needs - Measures necessary to produce the desired level of control, through application of best management practices, will be evaluated to show:

- period of time to carry out the measure onto the F&G/FS forms and ultimately, into the water quality data bank. The information will be of value in assessing water quality, delineating segments in need of protection, making recommendations for classification revision, and determining measures necessary to make specific areas fishable. The WQB will hire a person, selected by the F&G and FS, to compile the data (Appendix G).

WQB, F&G, FS 13.4 m/m Nov. 1, 1976 - March 1, 1977

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DNRC 10 m/m Nov. 1, 1976 - March 1, 1977

f) coordinate with Statewide Sediment Control Project. Since the objectives of the Sediment Project are coincident with some of the 208 planning goals, much of the Project's data will be incorporated into the Final Plan. Of particular interest will be Best Management Practices recommended for sediment control, quantitative data on the extent of erosion problems, identification of areas which may require site-specific analysis, the success of a regulatory program administered by a conservation district, and a cost-effectiveness analysis of the sediment control program.

WQB 2 m/m Nov. 1, 1976 - March 1, 1977

1) describe problems for each sub-planning area according to the following categories:
   - silvicultural activities
   - mining activities
   - construction activities
   - hydrologic modification
   - sources affecting groundwater
   - residual wastes disposal
2) identify affected waters and pollution sources
3) evaluate the seriousness of the effects

The water quality assessment task will provide input to this task and vice versa.

FS, DSL, DHES   16 m/m   Nov. 1, 1976 - March 1, 1977

m) estimate O-NPS control needs - Measures necessary to produce the desired level of control, through application of BMP's, will be evaluated to show:

- period of time to carry out the measure
- adequacy of regulatory programs to implement the measures
- agency(s) to supervise implementation
- costs of implementing controls

Determination of best management practices will be based on:

- physical characteristics of the site (e.g., soil, precipitation, slope, vegetation)
- kind of activity generating the pollution
- water quality needs of the segment or area

Limited funds will restrict monitoring and sampling to critical areas where additional data is needed and to assessing the effectiveness of management practices. Prioritization will focus initial attention on:

- problems that are physically reversible
- waters with potentially fast recovery rate
- problems with strong public support for solving

FS, DSL, DHES 5 m/m September 1 - November 1, 1977

n) identify point source pollution control requirements - The Bureau's permit program and the inventory/assessment tasks will identify sources requiring controls.

WQB 6 m/m August 15 - September 1, 1977

o) establish point source load allocations - For each water quality limited segment, the individual load allocation for point sources of pollutants, including thermal loads, will be established for each 5-year planning period.

- should individual load allocations exceed total allocations for the segment, methods for meeting standards at the discharge points will be shown
- allocations will consider economic and demographic growth projections
- allocations will be coordinated with terms and conditions of permits under the Montana Pollutant Discharge Elimination System

WQB 8 m/m Nov. 1, 1977 - Jan. 1, 1978

p) estimate municipal waste control needs - Municipal wastewater collection and treatment needs will be estimated by 5-year increments for a 20-year period. Estimates will consider:

- load reductions necessary to attain water quality standards
- populations to be served
- status of current planning efforts

The municipal needs inventory in the Bureau's construction grant program will provide most of the information with additional needs identifications coming from such groups as the League of Cities and Towns.

WQB 6 m/m January 1 - February 1, 1978

q) estimate industrial waste control needs - Industrial wastewater collection and treatment needs will consider:

- wasteload reduction necessary to meet standards
- municipal treatment of industrial wastes

The Bureau's MPDES program will provide input.

WQB 6 m/m January 1 - February 1, 1978

r) establish total maximum daily loads - For each water quality limited segment, a total allocation for point sources of pollution will be determined for each water quality criterion being violated or expected to be violated over the next 20 years:

- loads will be established at levels to achieve compliance with applicable water quality standards
- loads will take into account seasonal variations
- allowable loads will not exceed the dissipative capacity of receiving waters
- allowable loads will provide a margin of safety to take into account any lack of knowledge concerning the relationship between effluent limitations and water quality data and any uncertainty resulting from insufficient data
- established loads will allow for potential economic and demographic growth

WQB 8 m/m September 1 - November 1, 1977

s) review MPDES permit conditions - Water quality and stormwater runoff inventories and assessments will serve as a basis for re-evaluation of the permit system.

WQB 4 m/m January 1 - February 1, 1978

t) monitoring and sampling to support the above - Limited funds preclude statewide baseline studies and extensive monitoring that could be of value in some studies, such as Ag-NPS. Instead, attention will be focused on identified existing or potential critical problem areas for surveillance.

WQB 26 m/m Aug. 1, 1977 - April 1, 1978

3) facilities planning

Based on identified point source wastewater treatment needs, facilities planning will:

a) assist in delineation of service areas for facility planning under Section 201 efforts

b) inventory existing conditions and determine existing flows

c) estimate future wasteloads and flows based on:

    1) land use and development
    2) flow and wasteload forecasts
    3) sludge generation forecasts

d) evaluate existing and potential pollution problems in selected unsewered communities

WQB 16 m/m February 1 - April 1, 1978

4) land use

a) background studies

- statewide land use maps - A combined effort of several state and federal agencies, coordinated by DCA, will produce land use base maps of Montana. Priorities for counties to be mapped will be determined by immediate Statewide 208 needs. Map scale would probably be 1/125,000; definitions of proposed land use units appear in Appendix C

- determine population, economic and land conversion trends for priority cities and counties
- inventory past and present planning and implementation activities
- inventory and analyze land use controls
- develop projections of population, economic and land use conversion trends for 5, 10, 20-year periods

DCA 46 m/m Nov. 1, 1976 - Sept. 1, 1977

b) evaluation of existing land use planning - The task will be an assessment of local planning responsibilities and policy effectiveness. The assessment and a compilation of land use data and projections will provide the basis for formulation of alternative land use management and regulatory systems

DCA 18 m/m March 1 - October 1, 1977

c) land disposal needs - For both surface and sub-surface disposal, the task will:

- identify current and potential land disposal areas
- propose land disposal guidelines
- develop control implementation strategy

The task will require input from various land use oriented agencies and coordination with the Solid Waste Management Bureau.

WQB 10 m/m Sept. 1, 1977 - April 1, 1978

d) land use/water quality relationships

- identify representative site-specific areas where particular land use practices are having impacts on water quality. The selection of critical, representative areas is important and dependent on inter-agency input and the water quality assessment task.

- quantify the impacts. Where pollutant loadings for the specific sites are not available from previous tasks, a limited amount of monitoring and sampling will be undertaken; however, multiple use of an area may make numerical quantification impossible.
- develop existing and projected wasteloads. Showing the spatial relationship of existing and projected loads may be useful for abatement implementation by eliciting public reaction.
- evaluate alternative control measures
  - --in many cases, proposed BMP's will be based on observation rather than numerical data
  - --feasibility of land use controls and their relationship to existing and proposed institutional and financial arrangements will be considered
  - --where practical, land use controls should be consistent with other programs, policies and plans
  - --serious consideration of public opinion may facilitate control implementation

The WQB has been designated the agency responsible for this task since the problem(s) to be dealt with and the applicable agency will be identified during inventory and evaluation of water quality.

WQB	36 m/m	Sept. 1, 1977 - April 1, 1978

5) institutional, regulatory, and financial programs

a) target abatement dates - Compliance schedules will be developed for all significant dischargers, nonpoint source control measures, residual and land disposal controls, and stormwater system needs. In addition, a proposed scheduling of regulatory actions will be included.

WQB 5 m/m Nov. 1, 1977 - Feb. 1, 1978

b) inventory existing regulatory authority - The task will include a description of all existing regulatory programs which could be utilized to implement the state water quality management plan. The description will include the regulatory approach to be employed, the statutory basis for the program, and relevant administrative and financial program aspects. A description of necessary additional programs to be established in order to complement the management plan will be provided.

WQB 16 m/m Nov. 1, 1976 - March 1, 1977

c) evaluate management capabilities - Agencies involved in implementation of previously identified programs will be evaluated as to their capabilities for carrying out the required responsibilities. Since it is assumed each agency routinely evaluates their management capabilities, the task will involve a compilation and assessment of these evaluations and recommendations for changes.

WQB 24 m/m Oct. 1, 1977 - April 1, 1978

d) legal constraints - The majority of the legal information being compiled for the Designated Areawide Planning Districts will be applicable to statewide 208 planning. The information will include inventory, analysis, and evaluation of the existing legal framework, constitutional procedures, and municipal laws.

WQB 8 m/m Nov. 1, 1976 - March 1, 1977

e) fiscal policy - Policy will consist of a review of the economic feasibility of proposed actions and recommendations for financial implementation of the water quality management plan. Costs anticipated to result from 208 planning include:

- planning and management agencies. Funds must be available for coordination, review, and approval of planning and construction; annual plan update; continued investigation of financial resources; additional studies; implementation of required ordinances and regulations; public education.
- facilities planning. Funds must be available for detailed engineering planning of prioritized facility construction needs.
- facilities construction. Costs will include those for construction of drainage collection and conveyance systems and secondary control methods such as revegetation, slope stabilization, road paving, etc.
- inspection and enforcement. Costs will be incurred by regulatory agency staffing for public works inspection and enforcement of ordinances and regulations.
- operation and maintenance. Construction of new facilities will require a proportionate increase in maintenance staffs and equipment.
- monitoring. Water quality should be monitored and evaluated for control effectiveness of new systems. A continual evaluation will be used in annual plan update.

WQB 8 m/m Nov. 1, 1977 - April 1, 1978

6) environmental, social, and economic impact evaluation - An environmental assessment of the Final Plan will identify:

- plan schedule

- effectiveness in meeting water quality goals
- direct costs
- social, economic, and environmental impact

The Bureau will seek guidance from the Environmental Quality Council and EPA as to conformance with the Montana Environmental Policy Act and EIS development.

WQB	20 m/m	May 1 - October 1, 1978

B. Budget

Allocations for the 36 planning tasks (Table 1) are "best estimates" of anticipated needs; as contracts are finalized, allocations may require modification. Since it is impossible, at this time, to anticipate exact indirect costs to the point of enumeration, expenses for travel, equipment, etc. are incorporated into the allocation figure.

As indicated, water quality and quantity analysis tasks account for the major portion of the budget. Being recognized as Montana's major water quality problem, nonpoint source assessment will be emphasized in the analysis. Assuming that at least a portion, if not all, of the land use/water quality relationship task will be devoted to nonpoint source problems, approximately 19% of the total budget may be used for NPS assessment.

The budget disbursement schedule (Table 2) should also be viewed as "best estimates" as the figures may change in response to a transfer of funds between planning tasks. The schedule has been developed with inherent carryover to account for any unforeseen expenditures. An additional expenditure not depicted in the schedule will be the disbursement of planning funds to the four Indian reservations. Tribal contracts

TABLE 1

STATEWIDE 208 FUND ALLOCATIONS

Task	Man/months	Allocation & % of Total Budget	
1. program coordination and public participation			
a. refine and detail work plan	4 m/m	$ 6,000	
b. create and meet with Advisory System	6 m/m	9,000	
c. define and map planning area boundary	2 m/m	3,000	
d. staff, local, state, federal coordination	16 m/m	24,000	
e. public participation	24 m/m	36,000	
f. develop alternative plans, final draft preparation and amendment	6 m/m	9,000	
		$ 87,000	10.9%
2. water quality and quantity analysis			
a. assemble existing data	18 m/m	$ 27,000	
b. evaluate existing data	10 m/m	15,000	
c. conduct water quality assessment	14 m/m	21,000	
d. conduct fisheries inventory	13.4 m/m	20,100	
e. identify and quantify water use/allocations	10 m/m	15,000	
f. coordinate with Statewide Sediment Control Proj.	2 m/m	3,000	
g. conduct stormwater runoff inventory	10 m/m	15,000	
h. estimate stormwater runoff control needs	14 m/m	21,000	
i. identify Ag-NPS problems	26 m/m	39,000	
j. estimate Ag-NPS control needs	20 m/m	30,000	
k. conduct feedlot inventory	6 m/m	9,000	
l. identify O-NPS problems	16 m/m	24,000	
m. estimate O-NPS control needs	5 m/m	7,500	
n. identify pt source pollution control requirements	6 m/m	9,000	
o. establish total maximum daily loads	8 m/m	12,000	
p. establish point source load allocations	8 m/m	12,000	
q. estimate municipal waste control needs	6 m/m	9,000	
r. estimate industrial waste control needs	6 m/m	9,000	
s. review MPDES permit conditions	4 m/m	6,000	
t. monitoring and sampling	26 m/m	39,000	
		$342,600	42.8%
3. facilities planning	16 m/m	$ 24,000	3.0%
4. land use			
a. background studies	46 m/m	$ 69,000	
b. evaluation of existing land use planning	18 m/m	27,000	
c. land disposal needs	10 m/m	15,000	
d. land use/water quality relationships	36 m/m	54,000	
		$165,000	20.6%
5. institutional, regulatory, and financial programs			
a. target abatement dates	5 m/m	$ 7,500	
b. inventory existing regulatory authority	16 m/m	24,000	
c. evaluate management capabilities	24 m/m	36,000	
d. legal constraints	8 m/m	12,000	
e. fiscal policy	8 m/m	12,000	
		$ 91,500	11.4%
6. environmental, social, & economic impact evaluation	20 m/m	$ 30,000	3.8%
	493.4 m/m	$740,100	
Tribal Contracts		$ 59,900	7.5%
		$800,000	

TABLE 2

STATEWIDE 208 BUDGET DISBURSEMENT SCHEDULE

Task - Budget Period	man/months	Expense
1. July, Aug., Sept. 1976		
a. refine and detail work plan	4	$ 6,000
b. staff, local, state, federal coordination	1	1,500
c. public participation	2	3,000
		$ 10,500
2. Oct., Nov., Dec. 1976		
a. meet with Advisory System	1	$ 1,500
b. staff, local, state, federal coordination	2	3,000
c. public participation	2	3,000
d. assemble existing water quality data	9	13,500
e. fisheries inventory	8.4	12,600
f. identify and quantify water use	5	7,500
g. coordinate with Statewide Sediment Control Project	1	1,500
h. stormwater inventory	5	7,500
i. identify Ag-NPS problems	13	19,500
j. identify O-NPS problems	8	12,000
k. feedlot inventory	3	4,500
l. land use background studies	23	34,500
m. inventory existing regulatory authority	8	12,000
n. legal constraints	4	6,000
		$138,600
3. Jan., Feb., March, 1977		
a. staff, local, state, federal coordination	2	$ 3,000
b. public participation	2	3,000
c. assemble existing water quality data	9	13,500
d. evaluate existing water quality data	5	7,500
e. fisheries inventory	5	7,500
f. identify and quantify water use	5	7,500
g. coordinate with Statewide Sediment Control Project	1	1,500
h. stormwater inventory	5	7,500
i. identify Ag-NPS problems	13	19,500
j. identify O-NPS problems	8	12,000
k. feedlot inventory	3	4,500
l. land use background studies	12	18,000
m. inventory existing regulatory authority	8	12,000
n evaluate management capabilities	8	12,000
o. legal constraints	4	6,000
p. meet with Advisory System	1	1,500
		$136,500
4. April, May, June 1977		
a. meet with Advisory System	1	$ 1,500
b. staff, local, state, federal coordination	2	3,000
c. public participation	3	4,500

Task - Budget Period	man/months	Expense
4. d. evaluate existing water quality data	5	$ 7,500
e. conduct water quality assessment	7	10,500
f. land use background studies	11	16,500
g. evaluate management capabilities	8	12,000
		$ 55,500
5. July, Aug., Sept. 1977		
a. staff, local, state, federal coordination	2	$ 3,000
b. map planning area	2	3,000
c. public participation	3	4,500
d. conduct water quality assessment	7	10,500
e. estimate Ag-NPS control needs	10	15,000
f. estimate O-NPS control needs	3	4,500
g. identify point source pollution control requirements	6	9,000
h. establish total maximum daily loads	4	6,000
i. monitoring and sampling	9	13,500
j. evaluation of existing land use planning	6	9,000
k. land disposal needs	4	6,000
l. land use/water quality relationships	12	18,000
m. evaluate management capabilities	8	12,000
		$114,000
6. Oct., Nov., Dec. 1977		
a. staff, local, state, federal coordination	2	$ 3,000
b. public participation	3	4,500
c. estimate Ag-NPS control needs	10	15,000
d. estimate O-NPS control needs	2	3,000
e. establish point source load allocations	8	12,000
f. establish total maximum daily loads	4	6,000
g. monitoring and sampling	9	13,500
h. evaluation of existing land use planning	6	9,000
i. land disposal needs	3	4,500
j. land use/water quality relationships	12	18,000
k. target abatement dates	3	4,500
l. fiscal policy	4	6,000
		$ 99,000
7. Jan., Feb., March 1978		
a. meet with Advisory System	1	$ 1,500
b. staff, local, state, federal coordination	2	3,000
c. public participation	3	4,500
d. estimate stormwater control needs	14	21,000
e. estimate municipal waste control needs	6	9,000
f. estimate industrial waste control needs	6	9,000
g. review MPDES permit conditions	4	6,000
h. monitoring and sampling	8	12,000
i. facilities planning	16	24,000

Task - Budget Period	man/months	Expense
7. j. evaluation of existing land use planning	6	$ 9,000
k. land disposal needs	3	4,500
l. land use/water quality relationships	12	18,000
m. target abatement dates	2	3,000
n. fiscal policy	4	6,000
		$130,500
8. April, May, June 1978		
a. meet with Advisory System	1	$ 1,500
b. staff, local, state, federal coordination	2	3,000
c. public participation	3	4,500
d. develop, review, amend alternative and final plans	2	3,000
e. environmental, social, economic impacts review	10	15,000
		$ 27,000
9. July, Aug., Sept. 1978		
a. meet with Advisory System	1	$ 1,500
b. staff, local, state, federal coordination	1	1,500
c. public participation	3	4,500
d. develop, review, amend alternative and final plans	2	3,000
e. environmental, social, economic impacts review	10	15,000
		$ 25,500
10. October 1978		
a. develop, review, amend alternative and final plans	2	$ 3,000
	493.4	$740,100

will be developed, with EPA assistance, immediately following approval of the Final Work Plan. Figure 3 is a cumulative disbursement diagram based on the budget period totals.

C. Currently Available Data

An abundance of information applicable to 208 planning currently exists and will be eventually incorporated into the planning process. Reference will be made to the Montana Water Quality Bibliography, a comprehensive list of water quality studies in the state. Water quality data accessible through the STORET system will serve as an inventory base. Additional water quality monitoring data, not available in STORET, will be reviewed and incorporated where appropriate. Within the Department of Health and Environmental Sciences, 303(e) basin plans and municipal facility plans, as well as information available through MPDES permit, subdivision, solid waste, and air quality programs, will be data sources. The four areawide planning districts will provide pertinent legal information and recommendations for stream reclassification and water quality standards revisions within their areas. A partial listing of other ongoing studies which may contribute information are: Level B river basin studies under the Water Resources Planning Act; U. S. Army Corps of Engineers' urban studies; U. S. Geological Survey and U. S. Army Corps of Engineers' floodplain information studies. Water quality related data will come from: state and local government development programs including zoning laws, land use plans, and sewerage maps; resource conservation and development council reports; EPA research reports; impact statements with water quality related sections such as BLM's Regional Coal EIS and the Energy Planning Division's (DNRC) transmission line construction EIS's.

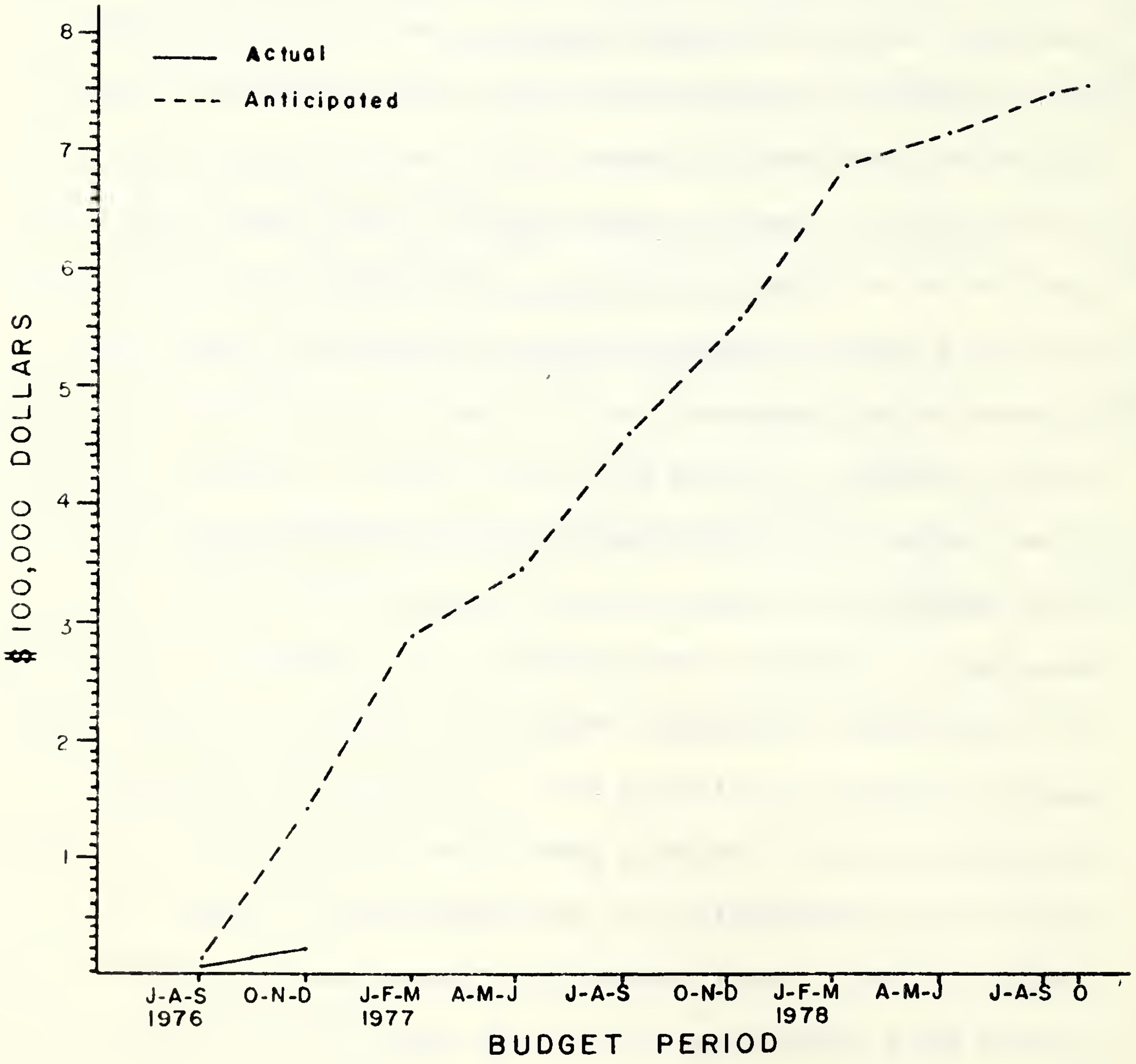


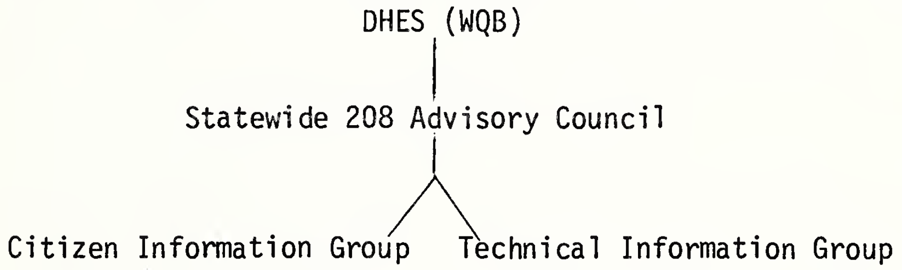
Figure 3. Anticipated and actual cumulative disbursements.

VII. COORDINATION AND COMPATIBILITY

Since water quality management is affected by broad policies concerning land use, regional development, and the many functional planning activities in the state, it is necessary to coordinate state water quality management planning with related policies, planning activities and programs. Coordination will prevent duplication of planning tasks; insure compatibility of growth projections, land use data, policy and program recommendations, and planning boundaries; result in a comprehensive and acceptable Final Plan.

A. Statewide 208 Advisory System

To provide coordination, advice, and decision-making during the planning process, the following advisory system has been formed.


DHES (WQB)
Statewide 208 Advisory Council
Citizen Information Group
Technical Information Group

Continual advice and guidance will be obtained from the Environmental Protection Agency. In addition, assistance in EIS preparation and Final Plan approval will come from that agency.

As the Designated Planning Agency, the DHES, Water Quality Bureau, will be responsible for insuring the accomplishment of all Work Plan tasks. Based upon task outputs and Advisory System inputs, the Water Quality Bureau will be further responsible for the development of alternative water quality management plans and final plan selection.

The Statewide 208 Advisory Council will contain the Montana Water Pollution Control Advisory Council as a nucleus. In addition, appointment of elected officials and selected individuals will give added depth to the 208 Council. Based upon input from the Technical and Citizen Information Groups, the Advisory Council will be responsible for all final planning recommendations during the project.

The Information Groups will be crucial to the planning process in that they will provide valuable advice to the Council and WQB on area problems, priorities, probable impact of management alternatives, and the technical and administrative feasibility of water quality management proposals. The 208 Advisory System as a whole, will then actually be responsible for selection of the Statewide Final Water Quality Management Plan.

Organizations contacted initially for participation on the CIG consisted mainly of environmental groups (see DFWP); however, CIG membership is expected to become comprehensive as the public participation program is expanded and additional direct contacts are initiated. Appendix D contains a list of groups and individuals which will be contacted in succeeding weeks and offered the opportunity to participate in the 208 Advisory System. The Advisory Council will then assist in the selection of CIG members from among groups and individuals expressing an active interest in 208 planning.

Though a few additions to the Technical Information Group are anticipated, membership for the Group is relatively complete. An up-to-date listing of current 208 Advisory System members is contained in Appendix E.

Members on the Council will have official gubernatorial appointment and will receive travel and per diem expenses for meetings attended; participation on the Information Groups is voluntary. To date, the governor's Council approval has been verbal; official written approval will be included in a periodic update of the Final Work Plan.

B. Relationships with Other Programs

The state has several water quality related programs which will be coordinated with Statewide 208 planning to produce effective water quality management decisions. Existing programs to be incorporated are:

1) State monitoring program - Regulations of the monitoring program will be reviewed and coordinated with the following 208 program elements:
    - water quality standards revisions
    - implementation of a non-degradation policy
    - water quality assessment (point and nonpoint sources). Though this plan element will be essentially dependent on existing information, additional monitoring may be needed, especially for parameters that might be included in revised water quality standards.
    - segment reclassifications
    - inventories and projections. Information on municipal and industrial waste discharges will be based on MPDES data and compliance monitoring.
    - total maximum daily loads. Additional monitoring may be needed to confirm water quality limited segments. The loading rates of point source discharges and estimates of nonpoint source wasteload rates will be needed to determine total maximum daily loads.
    - groundwater monitoring. Areas where additional monitoring may be necessary are: waste disposal areas, subsurface excavation, excess groundwater pumping, residential subsurface disposal, animal feeding operations, uranium solution mining, and oil well brine discharges.
2) facility planning - Plans for additional required treatment

facilities, not covered under the existing 201 program, will be developed in the statewide water quality management plan.

3) MPDES program - Information gathered under the municipal/industrial discharge permit program will support point source abatement alternatives.
4) solid waste management - State plans for solid waste management will be examined for recommended control practices.
5) basin plans - Section 208 planning will augment and expand the Section 303(e) plan, particularly in the areas of nonpoint pollution sources, urban runoff, land use, and fisheries.
6) designated 208 areawide planning - Though statewide 208 planning is exclusive of designated area planning in that the WQB is not responsible for any tasks in their planning processes, coordination will be maintained to exchange ideas and pertinent data. Legal studies, best management practices, and reclassification recommendations developed in areawide studies will be applicable to statewide 208 planning.
7) Statewide Sediment Control Project - Since many objectives of the Project are similar to those of 208 nonpoint source assessment, much of the data will be incorporated into the state water quality management plan.
8) air quality management - The state air quality implementation plan, drafted pursuant to the Clean Air Act, will be examined, particularly as it relates to land use and development decisions, to insure that population projections and control strategies developed under the air quality program are consistent with those for the statewide water quality management plan.

9) Level B River Basin Studies - Level B plans are to analyze water and related land resources management problems. Though Level B plans are reconnaissance-oriented as opposed to implementation emphasis of 208 planning, basic objectives are similar and close coordination of the two plans will alleviate duplication of effort.

10) Indian reservation water quality management plans - Though reservation water quality management plans will be developed independently of the state plan, close coordination will be maintained as management on the reservations may affect waters off tribal lands and vice versa.

11) local and regional planning - Land use related planning programs of various agencies will be reviewed for compatibility with the state water quality management plan. Land use planning sponsored by the Housing and Urban Development 701 program and the Department of Community Affairs will be closely coordinated to be consistent with land use recommendations of the water quality management plan and vice versa. Pertinent data on erosion, sediment loads, and nonpoint source control needs and techniques is expected to come from the Soil Conservation Service, Agriculture Stabilization and Conservation Services, U. S. Forest Service, Department of Agriculture, Department of State Lands; Department of Natural Resources and Conservation, and the Department of Fish and Game. The Conservation Districts' Long Range Programs and the State Rangeland Resource Program are soil, water and related resource programs which will be valuable for nonpoint source assessments. The statewide Comprehensive Outdoor Recreation Plan of the Department of Fish and Game, as it pertains to water-based recreation, will be reviewed for compatibility with the state water quality management plan. Planning by the

Department of Highways and the Federal Highway Administration will be reviewed and integrated to provide information on roadway runoff and expanded highway facilities impacts on water quality. Inter-state and international coordination will be established to assure planning compatibility for the Kootenai, Milk, Poplar, Missouri and Yellowstone Rivers.

12) existing legislation - A substantial amount of legislation currently exists which may be used to facilitate implementation of the final water quality management plan. For a description of these laws, reference is made to a DCA review of Montana state legislation. Appendix F contains an index to this report.

13) Environmental impact statements - As mentioned previously, statements pertinent to the study area and containing water quality sections will serve as information sources and will also be valuable in BMP development.

VIII. PUBLIC PARTICIPATION

Since the success of water quality management depends on acceptance by the public and local/state government, citizen involvement will be encouraged during all phases of the planning process and facilitated by development of a public participation program based on the following objectives:

1) The program will be active to the point of providing information, seeking and encouraging public input, and assisting the public in understanding and responding to water programs.

2) The program will adequately provide for the dissemination of information. Depositories of documents and data will be clearly identified and made readily available. Mailing lists, newsletters, meetings, and any other available information devices will be used

to convey programs, plans and significant actions to the public prior to decision-making.

3) The program will facilitate public involvement by appointing a public participation coordinator within the WQB and by developing an advisory system which will utilize public opinion.

4) The program will encourage involvement of city, county, and state elected officials, district councils, local groups, and state and federal agencies in all pending planning decisions.

5) The program will be responsive to all interested citizens; participation will not be dominated by any one interest group or individual.

The complexity of 208 planning requires the development of a structured public involvement program which will achieve support of water quality management planning by insuring adequate exchange of information and opinion. Such a program will be organized around the major phases of the project including: establishment of goals, design of alternatives, impact assessment, recommendation and acceptance of Final Plan, and annual Plan revision.

The initial establishment of goals and objectives will seek citizen opinion on:

- identification and prioritization of water quality problems
- relationship of water quality goals and community goals
- the role of water quality management in achieving community goals
- implementation of land use controls
- use of land disposal and innovative or controversial pollution control technologies.

In designing alternatives, the program will consider how community goals may conflict or be compatible with water pollution control alternatives. Public opinion will be solicited on the compatibility of various water pollution control approaches and community goals. Public reaction to possible management alternatives for plan implementation will also be sought.

Individuals and institutions affected by and interested in the project and those who will bear the responsibility for financing, construction, operations, monitoring, and enforcement will have the opportunity to assess the impacts of alternative plans. Results of the impact evaluation will be used in Final Plan selection.

During recommendation and acceptance of the Final Plan, such factors as the attainment of additional benefits from increased expenditure, or the minimization of undesirable social, economic, and environmental impacts will be considered. A major responsibility of the public participation program will be to insure that elected officials, responsible for local approval of the recommended plan, are made aware of public comments and opinions.

Subsequent to plan selection, the public will still have the opportunity to participate in periodic plan revision. Pertinent information will be made available continually to permit progress evaluation.

IX. IMPLEMENTATION

The primary objective of 208 planning is implementation of measures necessary to reduce and control water pollution in accordance with the federally established 1983 water quality goals. A Plan which is not usable has failed to meet Section 208 requirements.

The dominant philosophy of the statewide planning process and the key to successful implementation will be early involvement and continuous coordination. The WQB is confident that state and federal agencies, which participate throughout the planning process by providing technical advice and assistance in their areas of expertise, will readily implement proposed control measures on lands under their jurisdiction. Similarly, continuous involvement and utilization of local agencies will facilitate plan implementation on private lands. For example, analysis of agricultural nonpoint source pollution problems and proposal of necessary BMP's on the local level, by the conservation districts with assistance from SCS and ASCS, will be more successful than a state conducted assessment. And finally, an active and continuous public participation program, in which opinions of the private citizen are sought and considered, will result in acceptance of the final plan.

Although a certain amount of water quality management must rely on voluntary implementation of control measures, experience has shown that solely voluntary programs eventually fail; therefore Statewide 208 planning will focus on mandatory control of water pollution problems. The final plan will identify pollution sources in the statewide planning area and designate agencies responsible for regulation of the particular problems. Agencies so designated will either possess the necessary statutory authority for regulation or will be initiating legislative proposals to obtain the necessary regulatory authority. The final plan will also specify applicable forms of regulation for each pollution source, and indicate technical requirements of the regulations. Implementation will be further facilitated by providing adequate notice of pending regulations and rights of appeal to those to be affected by the regulatory program.

Recommendations of control measures will first utilize existing legislation (see page 42) and known BMP's and propose new control measures for any problems which may be unsolvable under existing means. Specific implementable measures will be identified and evaluated during the next two years; however, some general forms of regulatory control which may be used include:

1) land use controls - Several state and federal agencies currently have or will develop BMP's pertinent to their areas of jurisdiction. For example, conservation practices of the SCS will serve as a basis for control of Ag-NPS problems; BMP's developed by state and federal agencies will be utilized to control silvicultural NPS pollution problems. The conservation districts have the authority to develop land use regulations and success of the CD supported Statewide Sediment Control Project on a county basis will have applicability to 208 planning. Requirements of the DSL for mining reclamation and recommendations and requirements of various construction oriented agencies (e.g., Subdivision Bureau of DHES, Department of Highways, and Energy Planning Division of DNRC) will will be incorporated into the regulatory program. Finally, urban planning and zoning laws will be consulted and used where appropriate.
2) permits - The use of existing (MPDES) and the development of additional permit programs will satisfy many of Montana's water quality management objectives.
3) standards - Revised water quality standards, with an incorporated non-degradation policy and groundwater regulations, will play a primary role in the regulatory program.
4) fiscal policies - The voluntary control of water quality will be facilitated by implementation of financially supported control programs. Some examples include tax deductions for implementation of proposed BMP's, cost-share programs for alleviation of a particular problem, and fiscal assessments for water use.

In addition to effecting control measures, an integral part of the planning process will be the management of those elements not feasible for immediate implementation. For example, certain practical control measures requiring a more detailed analysis prior to implementation will be designated for further study. Also, plan elements depending upon institutional and legal changes by legislative or policy-making bodies, will be postponed pending those changes. And finally, because of time/money constraints, it will be necessary to limit immediate regulation to critical problems, and to designate lesser problems for future correction pending additional funding.

A final major facet of plan implementation is continual revision. Accurate projections developed during the planning process will minimize revisions; however, changing needs, problems, evaluation criteria, and social conditions will require periodic plan updating. The revision process will be dependent upon an adequate monitoring/evaluation/data update program, continuous agency coordination and public participation, and availability of resources. The Department of Health and Environmental Sciences pledges to maintain a data update program, facilitate coordination, constantly solicit public opinion, and cooperatively seek funding necessary for continuance of a water quality management program in Montana.

APPENDICES

APPENDIX A. Abbreviations used in the Final Work Plan

1. Ag-NPS - agricultural nonpoint source
2. ASCS - Agriculture Stabilization and Conservation Services
3. BLM - Bureau of Land Management
4. BMP - Best Management Practices
5. CIG - Citizen Information Group
6. CD - conservation district
7. DCA - Department of Community Affairs
8. DFWP - Draft Final Work Plan
9. DHES - Department of Health and Environmental Sciences
10. DNRC - Department of Natural Resources and Conservation
11. DSL - Department of State Lands
12. EIS - environmental impact statement
13. EPA - Environmental Protection Agency
14. F&G - Department of Fish and Game
15. FS - U. S. Forest Service
16. FWP - Final Work Plan
17. MACD - Montana Association of Conservation Districts
18. m/m - man/month
19. MPDES - Montana Pollutant Discharge Elimination System
20. MWPCAC - Montana Water Pollution Control Advisory Council
21. O-NPS - other nonpoint source
22. SCS - Soil Conservation Service
23. wq - water quality
24. WQB - Water Quality Bureau

APPENDIX B. Draft Final Work Plan review comments

Verbal comments on the DFWP presented by Ron Russell on September 9, 1976

1. The FS will be able to help with the evaluation of existing water quality data as their Intermountain Group is currently involved in water quality evaluation in forested areas.
2. The FS is currently developing a 10-year research project which will critically evaluate the impact of logging roads. Such a study will be applicable to the 208 project in the future.
3. The FS and F&G are currently in a joint agreement to conduct a fisheries-habitat survey statewide that would be applicable to 208.
4. The FS has several levels of plans which will be of value to 208 planning. The more general Area Plans should be available in time for 208 use; the more specific Unit Plans may not be done in time.
5. Ron felt the level of detail to be required in the inventories was too vague in the DFWP.
6. The FS would like to have input in the development of water quality standards criteria for NPS control.
7. Ron suggested we need to investigate the possibility of incorporating silvicultural BMP's into the state water quality standards.
8. Ron suggested that the State Forestry Division be involved in 208 planning and recommended contact with Earl Salmonson, State Forester in Missoula.

(Ron Russell is a hydrologist with U. S. Forest Service, in Missoula)

MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

THOMAS L. JUDGE, GOVERNOR
GARY WICKS, DIRECTOR

CONSERVATION DISTRICTS DIVISION
O. M. UELAND
ADMINISTRATOR

MEMBERS OF THE BOARD
JOSEPH W. SABOL, CHAIRMAN
VIOLA HERAK
DR. WILSON F. CLARK
DEAN HANSON
WILLIAM BERTSCHE
CECIL WEEDING
DAVID G. DRUM

449-2608
32 SOUTH EWING
NATURAL RESOURCES BUILDING
HELENA, MONTANA 59601

September 9, 1976

Ms. Carlene Farmer
Statewide 208 Coordinator
Water Quality Bureau
Department of Health & Environmental Sciences
Helena, MT 59601

Dear Ms. Farmer:

I have reviewed your Draft Final Work Plan for Statewide Section 208 Water Quality Management Planning. You have done a good job.

I would like to suggest you include under the section Coordination and Compatibility, Relationships with other Programs, page 31, identifiable, recognizable programs "Conservation District Long Range Programs". These programs are basically soil, water and related resource programs, and inherently, serve a major purpose of providing water quality. They are on-going programs that offer perhaps the best potential to build on for implementation of stepped-up water quality programs from non-point sources at the local level.

Sincerely,

O.M. Ueland

O.M. UELAND, ADMINISTRATOR
CONSERVATION DISTRICTS DIVISION

OMU/ljb

MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

THOMAS L. JUDGE, GOVERNOR
GARY WICKS, DIRECTOR

CONSERVATION DISTRICTS DIVISION
O. M. UELAND
ADMINISTRATOR

449-2608
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WILLIAM BERTSCHE
CECIL WEEDING
DAVID G. DRUM

September 15, 1976

Ms. Carlene Farmer, Ph.D.
Statewide 208 Coordinator
Water Quality Bureau
Environmental Sciences Division

Dear Carlene:

I forgot to mention that the "State Rangeland Resource Program" administered by the DNRC is also an identifiable program that could be listed under section VII.B of your Work Plan for Statewide 208 Water Quality Management Planning. I have alerted county range leaders to include water quality objectives in their county rangeland resource programs. Also of significance to help in developing BMPs for silviculture practices is the Montana Woodland Council which is an ad hoc group of state, federal and private agencies organized to develop mutually agreeable criteria or technical guides for wood and management, field windbreaks, etc.

Sincerely,

O.M. UELAND, ADMINISTRATOR
CONSERVATION DISTRICTS DIVISION

OMU/ljb

STATE OF MONTANA

DEPARTMENT OF

FISH AND GAME

Helena, Montana 59601
September 24, 1976

Ms. Carelene Farmer
Water Quality Bureau
Department of Health & Environmental Sciences
Helena, Montana 59601

Dear Carelene:

The Montana Department of Fish and Game has reviewed the Draft Statewide Section 208 Water Quality Management Plan. Our comments pertain mainly to the work plan as outlined on pages 11-26.

We realize that the scope of the plan is limited both in time and fund availability - priorities have to be set for expenditures. However, we feel that some fund redistribution needs to be made before the present plan can come close to achieving and/or maintaining the 1983 "swimmable and fishable" goal.

In the present plan, biological considerations have been less than adequately funded. It is unreasonable to expect our department and the U. S. Forest Service to assemble, evaluate and assess fisheries (and benthic insect) data for such a large portion of Montana, and then proceed to delineate stream segments in need of protection, make recommendations for classification revision, and determine measures necessary to make specific areas fishable, all on a budget of $15,000. The 1983 Act places a great deal of emphasis on biological criteria. As such, this plan does not seem consistent with these goals.

Another sorely neglected area within the plan is water use and allocations. Decreasing water quantity may be the greatest single detriment to maintaining viable biological communities in Montana stream Much more effort (again only $15,000 has been allotted) should be direct toward establishing stream segments where potential low flows may degrade water quality, and in turn, the total stream ecosystem. A team effort involving the Department of Natural Resources and Conservation, Water Quality Bureau, and Fish and Game is needed to define flow reservations to protect at least certain target streams.

If more effort is to be placed on the biological and water quantity portions of the work plan, other tasks would, of course, have to receive less funding. For example, it is questionable if an expenditure of $165,000 is needed to achieve tasks 2)a-c and 1-r, since they appear to be largely an updated review of existing bureau programs and a summary of the recently completed Basin Water Quality Inventory and Management Plans. The question is whether the ultimate goal of the Statewide 208 is to rehash existing data or to embark on a different approach, i.e., solid incorporation of biological and water quantity data into the 208 process.

The final misdirected portion of the work plan concerns nonpoint discharges. We agree that substantial effort should be invested to identify and estimate the control needs of these discharges. We also feel that the Conservation Districts should be involved in certain portions of the nonpoint study tasks. However, any research into evaluating the adequacy of regulatory programs and the agency(s) to supervise implementation of regulations should be done by an outside source - perhaps a university legal team. Also, another study team, composed of several scientific disciplines, should conduct the technical evaluations, particularly as they pertain to forestry and mining practices. We would not expect to have industry representatives review the adequacy of point discharge control, nor would we expect a forester or a mining engineer to prescribe agricultural Best Management Practices to farmers and ranchers. To expect the Conservation Districts to handle a broad area of regulatory and technical review is to go beyond their capabilities of jurisdiction and expertise.

We appreciate having the opportunity to comment on the draft work plan for Statewide 208 Planning. We would be happy to discuss our suggested changes with any members of your staff before final arrangements are made with the contracting agencies.

Sincerely,

Ralph W. Boland, Assistant Administrator
Environment & Information Division

By: Ken Knudson
Ken Knudson
Water Pollution Control Biologist

KK/sd

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
1860 LINCOLN STREET
DENVER, COLORADO 80203

REF: 8W-WP

Carlene Farmer, Ph.D.
Statewide 208 Coordinator
Water Quality Bureau
Department of Health and
Environmental Sciences
555 Fuller Street
Helena, Montana 59601

Dear Ms. Farmer:

The State of Montana's Draft Statewide 208 Work Plan has been reviewed by our office. It is an excellent starting point - having been carefully prepared and written. The Plan follows the 40 CFR 130/131 regulations closely and addresses most of the required elements of the Water Quality Management planning process. As recognized in the introductory remarks, the plan will require revision and addition of specific task related detail. We encourage this continual revision process and will be available to assist.

Attached are the specific comments we have on the Draft Work Plan.

Sincerely yours,

John A. Green
Regional Administrator

COMMENTS ON DRAFT/FINAL MONTANA STATEWIDE 208 WORK PLAN

1. Page 1 - As recognized, the plan will require revision and addition of specific detail. In the final work plan, the following should be included:

    a. Time Scheduling of Tasks: This scheduling should depict in detail all the proposed tasks and milestones leading to the outputs for the period of November 1976 to November 1978. All parts of the plan that are being done by contract or agreement should be fully integrated into this schedule. It should indicate how the total effort fits together to become an implementable water quality plan.

    b. Finalized Contracts: Outputs should be fully incorporated into the work plan.

    c. Details on Budget: This should include the actual manpower to be used, titles of personnel, and salary levels. A breakdown of all other costs such as travel, indirect expenses and equipment should be factored into the overall budgetary structure.

    d. Disbursement Schedule: This could be incorporated into the time scheduling chart as task initiation and accomplishment would be generating the direct cash flow.

    e. EPA's regulations, 40 CFR 130.11, specify the requirement for an agreement on level of detail and timing of State water quality plan preparation. The Montana Continuing Planning Process and the Statewide 208 work plan constitute this agreement. There are, however, two subject areas requiring further attention. First, there needs to be a recognition of areas within the State 208 planning boundaries that do not have water quality problems and hence do not require 208 planning and implementation (see 40 CFR 130.11(b). Secondly, priority ranking of problems needs to be addressed. Page 5 of the work plan references the necessity of priority ranking but does not go far enough. A summary of the problem ranking effort which underlies the draft work plan should be included as a part of the overall agreement on detail and timing. Each of the 16 subject areas covered in 40 CFR 131.11 should be addressed in this problem ranking for the State of Montana.

2. The following comments relate specifically to the content of the work plan.

a. Page 15: Given the effort that took place in the development of Phase I Basin Plan, it seems that the man-months allocated to 2(a) and 2(b) are high. These two elements ("Assemble Existing Data" and "Evaluate Existing Water Quality Data") should be analyzed to determine if the proposed level of effort is necessary. It is suggested the element 2(c) could use some additional effort.

b. Page 17: Task 2(e) should be carefully evaluated and defined. As it is structured the task is a rather all encompassing one which could absorb more effort than that allocated.

c. Page 28: It is recommended that the Water Pollution Control Advisory Council be expanded to include recognized citizen environmental groups. If this council is to pass on alternatives, then these people should be included.

d. The usefulness of the EPA EIS process in the Statewide 208 planning effort should be recognized. EPA has authority to work with the various Federal agencies at all stages of their planning and land use management by using pre-EIS conferences, draft EIS review, review follow-up, and final EIS review. Region VIII spends a great deal of effort on this type of work and has a very extensive background and ongoing programs related to specific public land management. This available expertise maybe of great use in structuring an implementable Water Quality Management Plan.

e. Page 31: Uranium solution mining and brine discharge from oil wells should be added to the groundwater monitoring program.

f. Page 31: Relationship With Other Programs. There are several areas that were overlooked in this section. How the Statewide 208 effort will incorporate such programs as the Montana Streambed and Land Preservation Law, the Montana Reclamation Law and the BLM Regional Coal EIS's should be addressed. These three areas should also be considered on page 18 task 2(i) "Identify Nonpoint Source Problem" and 2(j) "Estimate Nonpoint Source Control". These existing laws and programs will certainly effect BMP development.

g. Page 32: Program - Air Quality Management. The link that will tie the AQMA's into the Statewide 208 effort is unclear. The specific linkage and how the AQMA program will be factored into the Statewide 208 work plan needs to be addressed especially in the area of population and land use projections.

h. Page 36: Implementation. This section is the weakest in the entire plan. The emphasis now is on "Study" implementation. There is very little attention given to implementation of technical recommendations. A full understanding of the nature and scope of local, State, and Federal land use authority needs to be developed. A specific program should be identified for pursuing this type of information and bringing the existing authority to bear on the Statewide water quality problems. A listing of Potential Implementable Outputs should be developed. For example, how will the Streambed and Land Preservation Law be used to the best advantage in the solution of water quality problems in Montana.

3. General Comments: It is recommended that the final work plan contain a section devoted to the formulation of BMP's associated with abandoned mining sites, existing extraction operations and anticipated mining actions. BMP's should address remedial actions necessary for both metallic and non-metallic nonpoint source potential pollution.

United States Department of the Interior
BUREAU OF OUTDOOR RECREATION
MID-CONTINENT REGION

MAILING ADDRESS:
Post Office Box 25387
Denver Federal Center
Denver, Colorado 80225

STREET LOCATION:
603 Miller Court
Lakewood, Colorado
Telephone 234-2634

IN REPLY REFER TO:
D6427

SEP [illegible] 1976

Carlene Farmer, Ph.D.
Statewide 208 Coordinator
Water Quality Bureau
Montana Department of Health
and Environmental Sciences
Helena, Montana 59601

Dear Ms. Farmer:

We appreciate the opportunity to have reviewed the Montana Statewide Section 208 Water Quality Management Work Plan. The Work Plan is a significant accomplishment and is well done.

Although the Work Plan recognizes recreation interests in several places, our comments are made with the desire to strengthen the understanding that one of the major benefits that will result from 208 planning will be to make water more suitable for recreation and a generally improved environment. For example, on page 5, it would appear that a better analysis could be made if, in association with items 5, 6, and 7, an assessment could be included of current uses, especially recreation, of each stream segment and what uses will be possible when the 1983 goals are met. Likewise, on page 7, part 3, it would be of value to inventory the recreation activities that now are occurring and project what is likely to occur. For example, to what extent will recreation opportunities be enhanced by meeting the 1983 goals?

On page 8, last paragraph, the assessment should consider that in certain areas recreation-related activities are a source of pollution, i.e., ski areas, vacation homes, and associated septic tanks, camping, and even erosion caused by off-road vehicles. This concern should be addressed again on page 18, part i, 1.

On page 17, para. e, there should be included the consideration of minimum flows needed for all water related recreation activities that are likely to occur on each stream. For example, what are the flows needed to permit various kinds of boating and at what times of the year are they needed?

On page 27, paragraph 1, the State Comprehensive Outdoor Recreation Plan (SCORP) and the on-going planning efforts of the State Department of Fish and Game to maintain that plan should be included.

Again, we appreciate the opportunity to make the above comments. We are most interested in being kept informed of the progress of your work and in the plan that will result.

Sincerely,

Albert G. Baldwin
Assistant Regional Director
Resource Planning Services

APPENDIX C. Tentative land use map definitions

Draft

August 16, 1976

Land Use Definitions

1. Urban and Community Land Uses - this includes all centrally located, high impact activities such as commercial, service, institutional, and light industrial land uses. Residential, subdivision areas within or contiguous to urban or community areas, or depending on their facilities, also fall in this category. All communities shown on the official highway map are identified.

   Because these are so intermixed and are difficult to separate out, even at large scales, this classification is used to represent this mixture of uses as urban oriented and generated. Due to their similarity in function, both urban and community centers as well as strip developments along highways would fall under this classification.

2. Heavy Industry and Utilities - this includes major water and sewage treatment plans, feed lots, stockyards, wood, chemical and mineral processing plants, power transmission lines and electric power generation plants.

   Because of their adverse air and water quality impacts and power and transportation requirements, these land uses are shown separately. Those uses occupying less than 40 acres are represented by point symbols.

3. Rural Subdivision Tracts - any recorded rural subdivision tracts of more than 40 acres, or totaling more than 40 acres, are identified. This classification does not reflect degree of occupancy of the tracts.

   Subdivision, for the purposes of this map, means the dividing of land into building lots and does not conform to the definition of subdivision as defined in the Montana Subdivision and Platting Act (Ch. 38, Sec. 11-3859 through 11-3876, R.C.M. 1947.) This includes tracts recorded from ____ to 1976.

4. Mineral Extraction - this includes any strip or open cut mining and subsurface mining, gravel pits and quarries, tailing and waste areas, and oil and gas fields. Point symbols are used for areas under 40 acres.

5. Irrigated Cropland, Hayland and Pastureland - land devoted to vegetable, grain, and hay production using subsurface, flood or sprinkler irrigation is identified in this category. This includes irrigated hay and pasture, row crops, truck farms, and orchards.

6. Non-Irrigated Cropland and Pasture - this includes all cultivated agricultural land not using irrigation. Land usually used for cultivation, but occasionally used for grazing is classified as non-irrigated cropland. Land which is seeded and planted for hay at regular intervals is identified as pasture.

7. Recreational Use Areas - this includes areas on both public and private lands identified as being used for recreation. Ski areas, parks, campgrounds, and general recreation areas, with or without support facilities are shown.

The majority of areas actively used for recreation have accommodations. However, impacts caused by locally identified recreation areas lacking support facilities need identification.

8. Rangeland - this is native grassland or shrubland of less than ____% tree cover which maintains itself without planning or irrigation.

This includes permanently abandoned cropland that has returned to natural grassland and land leased for grazing on public lands.

9. Commercial Forest - these are areas devoted to commercial forest production practices as well as areas of potential commercial production because of their tree species, size, and proximity to roads. Clear cut areas as well as those in various stages of managed growth are identified under this heading.

Roadbuilding, logging practices and heavy truck traffic result in adverse environmental impacts of importance to planning and conservation interests. This coupled with economic importance of wood products makes it important to identify this activity.

10. Barren, Tundra and Marshland - this includes eroded areas, steep rocky slopes, areas above timberline, saline seep areas, and open marshland.

These areas are of little production value to man because of thise lack of vegetation, unproductive surface condition, or inaccessability.

11. Forest Cover - areas displaying a natural tree canopy or crown cover of a certain density. This includes both coniferous and decideous trees.

APPENDIX D. Potential Citizen Information Group participants

Persons Contacted for Citizen Information Group Participation

Lobbyists

Gary C. Aklestad, NFO, Shelby
Archibald H. Allen, Park Co. Leg. Asso., Livingston
Bryant B. Anderson, Helena Prop. Own. Asso., Helena
Jerome Anderson, Minn. Min. & Manuf. Co., Billings
Walter Anderson, Mont. Taxpayers Asso., Missoula
Eugene R. Andrews, Nat. Fed. Ind. Bus., Olympia, Washington
Stanley C. Burger, Farm Bureau Fed., Bozeman
Cliff Christian, Mont. Asso. Real., Helena
Lloyd Crippen, Anaconda Co., Butte
Stephen O. Gunderson, Farmers Union, Power
Jule K. Gustafson, Lives. Mrkts Asso., Simms
Erv Gysler, Mont. Chamb. Commerce, Fort Benton
Jack Iman, Mont. St. Grange Victor
Gregory A. Jackson, Mont. Bd. Real Estate, Helena
William M. Kirkpatrick, Mont., Wood Prod. Asso., Missoula
Kenneth Kochel, MDU, Glendive
John Larh, MPC, Butte
Henry Loble, Tenneco Coal Co., Helena
Lester H. Loble II, Intake Wat.Co., Helena
Jerome T. Loendorf, Timb.Tracts, Inc., Helena
John H. Morrison, Mont. Wat. Dev. Asso., Helena
William R. Morse, Mont. Wat. Well Driller Asso., Absarokee
Jack D. Rehberg, Mont. Pet. Asso., Billings
John H. Risken, Shell Oil Co., Helena
C. S. Robinson, Pac. Power & Light, Kalispell
Gene Spilde, Sweet Grass Pres. Asso., Ovando

Governor's Ad-Hoc Committee of Farm Organizations, Commodity Groups and Farm Publications

Mrs. Mons Tiegen, Mont. Stockg. Asso., Helena
Mrs. Sue Huls, Mont. Pork Prod. Co., Bozeman
Mrs. Vivian Theussen, Mont. Grain Growers Asso., Dagmar
Mr. Gene Walker, Mont. Cattlemens Asso., Alzada
Mr. Keith Nordheim, Mont. Dairymen's Asso., Helena
Mr. Walter Shock, Am. Dairy Asso. Mt., St. Ignatius
Mr. Tom Hager, Mt. Poul. Prod. Co., Billings
Mr. Jim Fleming, Mont. Pot. Impr. Asso., Pablo
Ms. Nancy Epsy, Meat Promot. Mont., Broadus
Mr. Earl Peace, ed., Mont. Pork Prod., Bozeman
Mr. Russell Cox, Mont. Rural Ele. News, Great Falls
Mr. Ray Fenton, The Wheat Scoop, Great Falls
Mr. Leland Cade, Mont. Farm.-Stkmn, Great Falls
Mr. Bob Hauser, Farm Shelby
Mr. Doug Warren, NOW, Bozeman
Mr. Sam Rosen, Extension Ed., Bozeman
Mr. Joe Renders, Mont. Farm. Union News, Great Falls
Mr. Conrad Burns, Mont. Agrinet, Billings

(continued)

Mr. Art Shaw, Mont. Seedg. Asso.,
  Bozeman
Mr. Rob Johnson, Mont. Co. Ext. Asso.,
  Hamilton
Mr. John Delano, Mont. Rail. Asso.,
  Helena
Mr. Erv Gysler, Agric. Comm.,
  Shelby
Mr. Arnold Peterson, GTA,
  Havre
Mr. Jim Debree, St. Rural Areas Dev.,
  Bozeman
Mr. Ed McLean, S.C. Dev. Fed.,
  Hardin
The Montana-Wyoming News,
  Billings
Mr. Bob Gilbert, ed., Mont. Woolg.,
  Helena
Mr. Brent Gaylord, the Prairie Star,
  Valier
Associated Press,
  Helena
United Press International,
  Helena
Lee Newspaper State Bureau,
  Helena
Frank Adams, Great Falls Tribune,
  Helena
Mr. Fred Schmauck, IMN,
  Helena
Mr. Robert E. Miller, Mont. Wat. News,
  Helena
Mrs. Judy Herman, Mont. Cowbelles,
  Niarada
Mr. Bill Porter, American Chemet,
  East Helena
Mr. Mel Williams, Commun. Econ. Dev.
  Comm., Laurel

Business and Industry

S. M. Lane, ASARCO, Inc.,
  East Helena
Burlington Northern,
  Billings
CENEX,
  Laurel
Continental Oil Company,
  Billings
Exxon Company USA,
  Billings
Hoerner-Waldorf Corporation,
  Missoula
Howard McDowell, Inland For. Res. Co.,
  Missoula
Montana Associated Utilities, Inc.,
  Great Falls,
Montana Coal Council,
  Helena
Montana Construction Industry Council,
  Billings
Montana Mobile Homes Association,
  Helena
Phillips Petroleum Company,
  Great Falls
Richard Thompson, West. Mont. Min.
  Assoc., Missoula

Environmental and Public Interest Groups

Alternative Energy Research Org.,
  Billings
Dr. Robert Bell, Econ. Dev. Asso.,
  Sidney
Farm Bureau,
  Bozeman
Student Env. Res. Center,
  Missoula
Dr. Gary Eudaily, West. Mont. F&G
  Asso., Missoula
Lewistown Rod and Gun Club,
  Lewistown

(continued)

Everett Miller, K.E.E.P., Philipsburg
John Thomson, Anaconda Sports Club, Anaconda
Bill Hampton, Custer Rod & Gun Club, Miles City
George Rediske, Park Co. Rod & Gun Club, Livingston
Jack Schilla, Prickley Pear Sportsmens Club, Helena
Skyline Sportsmens Club, Butte
Judy Mathre, AAUW, Bozeman
Dr. John Craighead, Coop. Wild. Res. Unit, Missoula
Glen Childers, Mont. Out. & Dude Ranchers Assoc., Brusett
Elenor Pratt, Mont. Women's Polit. Caucus, Bozeman
Bob Clark, Pres., Helena Outdoors Club, Helena
Don Aldrich, Montana Wildlife Fed., Missoula
Allen LeMieux, Trout Unlimited, Boulder
Mr. & Mrs. Ken Baldwin, Wilderness Asso., Bozeman
Environmental Information Center, Helena
Northern Plains Resource Council, Billings
Northern Rockies Action Group, Helena
Larry Thompson, Last Chance Audubon Society, Helena
Joe Angell, Sierra Club, Helena
Three Corners Boundary Assoc., Scobey

In addition, letters will be sent to each board of county commissioners, mayor, senator, representative, and county extension agent in the Statewide 208 study area.

APPENDIX E. Statewide 208 Advisory System members

STATEWIDE 208 ADVISORY SYSTEM MEMBERS
AS OF OCTOBER 8, 1976

Water Quality Bureau Personnel

1. Don Willems, Chief, Helena, 449-2406
2. Steve Pilcher, 208 Projects Coordinator, Helena, 449-2406
3. Carlene Farmer, Statewide 208 Coordinator, Helena, 449-2406
4. Kit Walther, Public Participation Coordinator, Helena, 449-2406

Advisory Council

1. Elton J. Ahlgren, MWPCAC - industry concerned with organic wastes
1026 North 27th
Billings, Montana 59101
252-3841

2. A. C. Knight, M.D., MWPCAC - DHES
Director
State Dept. of Health and Environmental Sciences
Helena, Montana 59601
449-2544

3. Robert M. Anderson, MWPCAC - conservation district suprvr.
Box 673
Fort Benton, Montana 59442

4. Arlyn Plowman, MWPCAC - labor
Trident Cement Co.
414 North 4th
Bozeman, Montana 59715
285-3241

5. Joe Etchart, MWPCAC - livestock feeder
Hinsdale Livestock Co.
Box 429
Glasgow, Montana 59230
228-2835

6. Orrin Ferris, MWPCAC - DNRC
   Water Resources Division
   Dept. of Natural Resources and Conservation
   Helena, Montana 59601
   449-3634

7. George McArthur, MWPCAC - industry concerned with inorganic wastes
   Anaconda Company
   Hennessy Building
   Butte, Montana 59701

8. George Lackman, MWPCAC - agriculture
   Director
   Department of Agriculture
   Helena, Montana 59601
   449-3144

9. Pat Timmons, MWPCAC - water recreation
   S. Karrow Avenue
   Whitefish, Montana 59937
   862-4049

10. Benjamin Williams, MWPCAC - sport fishing
    Box 628
    5 Loch Leven Drive
    Livingston, Montana 59047
    222-1270

11. Wes Woodgerd, MWPCAC - State Dept. of Fish and Game
    (Ralph Boland - official representative)
    Department of Fish and Game
    Helena, Montana 59601
    449-3186

12. to be filled, MWPCAC - municipalities

13. Dan Mizner, Exec. Director
    Montana League of Cities and Towns
    Box 1704
    Helena, Montana 59601
    442-8768

14. Dean Zinnecker
    Montana Association of Counties
    1802 11th Avenue
    Helena, Montana 59601
    442-5209

15. Gladys Elison
League of Women Voters
6630 Siesta Drive
Missoula, Montana 59801
543-4096

16. Leland Schoonover
105 6th Avenue West
Polson, Montana 59860
883-2342

17. Edgar Langston
Wheatland County Commissioner
Harlowton, Montana 59036
632-4108

18. William Bowden, Jr.
Alderman
122 West 5th Avenue
Anaconda, Montana 59711

19. Harry Simons
Mayor of Shelby
Box 743
Shelby, Montana 59474
434-2835

20. Kenneth Coulter
Garfield County Commissioner
Brusett, Montana 59318
557-2517

21. Duane Compton
District One Council
County Courthouse
Malta, Montana 59538

22. Dr. S. L. (Bus) Lahren, Jr.
District Six Council
Box 302
Roundup, Montana 59072
323-2547

Technical Information Group

1. Robert Biggerstaff, Exec. Vice President
Montana Assoc. of Conservation Districts
7 Edwards
Helena, Montana 59601
443-5711

2. Lt. James K. Leander
   U. S. Corps of Engineers
   Box 208
   Fort Peck, Montana 59223

3. Dr. Charles Rust
   Cooperative Extension Service
   Montana State University
   Bozeman, Montana 59715
   126-3451

4. Emmanuel Lauck
   Bureau of Outdoor Recreation
   Box 25387
   Denver Federal Center
   Denver, Colorado 80225

5. Gary Wood, Supervisor
   Ecological Services
   U. S. Fish and Wildlife Service
   711 Central
   Billings, Montana 59102
   245-6711

6. Ronald Russell, Hydrologist
   U. S. Dept. of Agriculture, Forest Service
   Missoula, Montana 59801
   329-3594

7. Rick Gold
   Bureau of Reclamation
   316 North 26th
   Billings, Montana 59101
   245-6517

8. James Binando
   Bureau of Land Management
   Box 30157
   Billings, Montana 59107
   657-6632

9. Van K. Haderlie, State Conservationist
   Attn: Frank Schledorn
   Soil Conservation Service
   Box 970
   Bozeman, Montana 59715
   587-5271

10. Barbara Garrett
    Division of Planning
    Department of Community Affairs
    Helena, Montana 59601
    449-3757

11. Pete Jackson
Western Environmental Trade Assoc.
Room 305 - Northwestern Bank Building
Last Chance Gulch
Helena, Montana 59601

12. Ken Knudson
Environment and Information Division
Department of Fish and Game
Helena, Montana 59601
449-2445

13. Loren Bahls, Ecologist
Environmental Quality Council
Helena, Montana 59601
449-3742

14. Harry Anderson, Director
Attn: Larry Ivanovitch
Department of Highways
Helena, Montana 59601
449-2482

15. Leo Berry, Jr., Acting Commissioner
Attention: Mike Bishop and Roger Veseth
Department of State Lands
Helena, Montana 59601
449-2074

16. Ole Ueland, Administrator
Conservation Districts Division
Dept. of Natural Resources and Conservation
Helena, Montana 59601
449-2608

17. George Algard
Department of Agriculture
Helena, Montana 59601
449-3730

18. Earl Salmonson
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APPENDIX F. Index to: Montana State Legislative Review for 208 - Water Quality Management Planning Projects. March 1976. John Andrews, Barbara Garrett, Jim Richard, Department of Community Affairs, Planning Division.

INDEX

	Page
Agricultural Practices	
Conservation District	5
Conservancy District	7
Agricultural Land	20
Montana Water Use Act	1
Appropriation & Regulation of Groundwater	11
Irrigation District Law	6
Grass Conservation Act	6
Floods	
Floodway Management & Regulation	12
Conservation Districts	5
Conservancy Districts	7
Forest Practices	
Forest Conservation & Fire Protection	9
Forest Tree Disease	9
Disposal of Slashing & Forest Debris	9
Portable Sawmills	8
Timber Sales Law	8

Page

Mining

- Coal
  - Montana Strip Mine & Reclamation Act 14
  - Strip Mine Siting Act 18
- Metals
  - New Hard Rock Law 16
- Sand, gravel, and other materials
  - Open Cut Mining Act 17
- Uranium
  - Control of Uranium Solution Extraction 13
  - Montana Strip Mine and Reclamation Act 14
  - Strip Mine Siting 18

Oil and Gas

- Conservation of Oil and Gas 10

State Lands

- Agricultural Lands 20
- Coal Leases 21
- Development of Resources 23
- Easements for Public Purposes 22
- General Provisions 19

Page

State Lands (Cont.)

Geothermal Resources 24
Hydroelectric Power 22
Mining and Prospecting 21
Natural Areas Act 24
Oil and Gas Leases 22
Sale and Exchange of State Lands 22
Sand, Gravel, and Other Materials 21
State Forests 8
Stream, Lake, Island Property 23
Timber Sales 8

Stream and Lake Preservation

Construction and Hydraulic Projects 2
Natural Streambed and Lake Preservation Act 13
Protection of Lake Areas 12
Montana Water Use Act 1

Water Quality

Conservancy District Law 7
State Conservation District Law 5
Water Pollution Law 3

Page

Water Quality (Cont.)

Oil and Gas Conservation 10

Montana Water Use Act 1

Water Use and Rights

Appropriation and Regulation of Groundwater 11

Conservancy District Law 7

Irrigation Districts Law 6

Montana Water Resources Act 10

Montana Water Use Act 1

Water Rights 10

Zoning and Land Use Regulations

County Planning and Zoning Districts 27

County Zoning 26

Municipal Zoning Statutes 25

Subdivision and Platting Act 28